

AMENDMENT

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently amended) A substrate cleaning method comprising:

performing a cleaning process on a target substrate while feeding a cleaning liquid onto the substrate; and

performing a dry process on the target substrate after the cleaning process,
wherein the dry process comprises,

rotating the target substrate in a horizontal state during a predetermined period,

starting feeding of a rinse liquid onto a surface of the target substrate at or before a first time point within the predetermined period, while setting a liquid feed point where the rinse liquid is supplied onto the target substrate, at a center of the target substrate,

starting feeding of an inactive gas onto the surface of the target substrate at or before the first time point within the predetermined period, while setting a gas feed point where the inactive gas is supplied onto the target substrate at a gas start position 10 to 50 mm distant from the center of the target substrate,

feeding the rinse liquid onto the surface of the target substrate during a period from the first time point to a second time point within the predetermined period, while moving the liquid feed point radially outward from the center of the target substrate to an intermediate position on the substrate,

feeding the inactive gas onto the surface of the target substrate during the period from the first time point to the second time point, while moving the gas feed point radially inward from the gas start position to the center of the target substrate,

feeding the rinse liquid onto the surface of the target substrate during a period from the second time point to a third time point within the predetermined period, while moving the liquid feed point radially outward from the intermediate position to a periphery of the target substrate,
and

feeding the inactive gas onto the surface of the target substrate during the period from the second time point to the third time point and a period from the third time point to a fourth time

point within the predetermined period, while moving the gas feed point radially outward from the center of the target substrate to the periphery of the target substrate, such that the gas feed point is kept located radially inward of the liquid feed point during the period from the second time point to the third time point.

2. (Currently amended) The substrate cleaning method according to claim 1, wherein said starting of feeding a rinse liquid and said starting of feeding an inactive gas are performed at substantially the same time.

3. (Previously presented) The substrate cleaning method according to claim 1, wherein the gas feed point is moved at a higher speed at the periphery of the target substrate than at the center thereof during the periods from the second time point to the fourth time point.

4. (Currently amended) The substrate cleaning method according to claim 1, wherein the method further comprises a rinse process, including feeding the rinse liquid onto the surface of the target substrate for a predetermined time while rotating the target substrate in a horizontal state, between the cleaning process and the dry process, and rotating the target substrate during the periods from the first time point to the fourth time point with a higher rotational speed than in the rinse process.

5. (Currently amended) The substrate cleaning method according to claim 1, wherein the method further comprises a rinse process, including feeding the rinse liquid onto the surface of the target substrate for a predetermined time while rotating the target substrate in a horizontal state, between the cleaning process and the dry process, wherein an amount of the rinse liquid fed onto the surface of the target substrate is smaller in the dry process than in the rinse process.

6. (Currently amended) The substrate cleaning method according to claim 1, wherein the method further comprises a rinse process, including feeding the rinse liquid onto the surface of the target substrate for a predetermined time while rotating the target substrate in a horizontal state, between the cleaning process and the dry process, wherein a film of the rinse liquid is present on

the surface of the target substrate when the dry process is started.

7. (Previously presented) The substrate cleaning method according to claim 1, wherein the dry process further comprises feeding the inactive gas onto the surface of the target substrate for a predetermined time from the fourth time point, while setting the gas feed point at the periphery of the target substrate.

8. (Previously presented) The substrate cleaning method according to claim 1, wherein the liquid feed point and the gas feed point are moved in different directions during the period from the second time point to the third time point.

9. (Previously presented) The substrate cleaning method according to claim 1, wherein the surface of the target substrate comprises a hydrophobic portion.

10. (Previously presented) A substrate cleaning method comprising:

- performing a cleaning process on a target substrate while feeding a cleaning liquid onto the substrate; and

- performing a dry process on the target substrate after the cleaning process, wherein the dry process comprises,

 - rotating the target substrate in a horizontal state during a predetermined period, starting feeding of a rinse liquid onto a surface of the target substrate at or before a first time point within the predetermined period, while setting a liquid feed point where the rinse liquid is supplied onto the target substrate, at a center of the target substrate,

 - starting feeding of an inactive gas onto the surface of the target substrate at or before the first time point within the predetermined period, while setting a gas feed point where the inactive gas is supplied onto the target substrate at a gas start position 10 to 50 mm distant from the center of the target substrate,

 - feeding the rinse liquid on to the surface of the target substrate during a period from the first time point to a second time point within the predetermined period, while moving the liquid feed point radially outward from the center of the target substrate to an intermediate position on

the target substrate,

feeding the inactive gas onto the surface of the target substrate during the period from the first time point to the second time point, while moving the gas feed point radially inward from the gas start position to the center of the target substrate,

feeding the inactive gas onto the surface of the target substrate during the period from the second time point to the third time point and a period from the third time point to a fourth time point within the predetermined period, while moving the gas feed point radially outward from the center of the target substrate to the periphery of the target substrate, such that the gas feed point is kept located radially inward of the liquid feed point during the period from the second time point to the third time point, and

rotating the substrate without feeding either the rinse liquid or the inactive gas onto the surface of the target substrate for a predetermined time from or after the fourth time point, with a higher rotational speed than in the periods from the first time point to the fourth time point.

11. (Previously presented) The substrate cleaning method according to claim 10, wherein the gas feed point is moved at a higher speed at the periphery of the target substrate than at the center thereof during the periods from the second time point to the fourth time point.

12. (Currently Amended) The substrate cleaning method according to claim 10, wherein the method further comprises a rinse process, including feeding the rinse liquid onto the surface of the target substrate for a predetermined time while rotating the target substrate in a horizontal state, between the cleaning process and the dry process, and rotating the target substrate during the periods from the first time point to the fourth time point with a higher rotational speed than in the rinse process.

13. (Currently Amended) The substrate cleaning method according to claim 10, wherein the method further comprises a rinse process, including feeding the rinse liquid onto the surface of the target substrate for a predetermined time while rotating the target substrate in a horizontal state, between the cleaning process and the dry process, wherein an amount of the rinse liquid to be fed onto the surface of the target substrate is smaller in the dry process than in the rinse

process.

14. (Currently amended) The substrate cleaning method according to claim 10, wherein the method further comprises a rinse process, including feeding the rinse liquid onto the surface of the target substrate for a predetermined time while rotating the target substrate in a horizontal state, between the cleaning process and the dry process, and wherein a film of the rinse liquid is present on the surface of the target substrate when the dry process is started.

15. (Previously presented) The substrate cleaning method according to claim 10, wherein the dry process further comprises feeding the inactive gas onto the surface of the target substrate for a predetermined time from the fourth time point, while setting the gas feed point at the periphery of the target substrate.

16. (Previously presented) The substrate cleaning method according to claim 10, wherein the liquid feed point and the gas feed point are moved in different directions during the period of the second time point to the third time point.

17. (Previously presented) The substrate cleaning method according to claim 10, wherein the surface of the target substrate comprises a hydrophobic portion.

18-22. (Canceled)

23. (Currently amended) A computer readable storage medium storing instructions which run on a computer to control a substrate cleaning apparatus to conduct a substrate cleaning method comprising:

performing a cleaning process on a target substrate while feeding a cleaning liquid onto the substrate; and performing a dry process on the target substrate after the cleaning process, wherein the dry process comprises,

rotating the target substrate in a horizontal state during a predetermined period,

starting feeding of a rinse liquid onto a surface of the target substrate at or before a first time point within the predetermined period, while setting a liquid feed point where the rinse liquid is supplied onto the target substrate, at a center of the target substrate,

starting feeding of an inactive gas onto the surface of the target substrate at or before the first time point within the predetermined period, while setting a gas feed point where the inactive gas is supplied ~~onto~~, onto the target substrate at a gas start position 10 to 50 mm distant from the center of the target substrate,

feeding the rinse liquid onto the surface of the target substrate during a period from the first time point to a second time point within the predetermined period, while moving the liquid feed point radially outward from the center of the target substrate to an intermediate position on the target substrate,

feeding the inactive gas onto the surface of the target substrate during the period from the first time point to the second time point, while moving the gas feed point radially inward from the gas start position to the center of the target substrate,

feeding the rinse liquid onto the surface of the target substrate during a period from the second time point to a third time point within the predetermined period, while moving the liquid feed point radially outward from the intermediate position to a periphery of the target substrate, and

feeding the inactive gas onto the surface of the target substrate during the period from the second time point to the third time point and a period from the third time point to a fourth time point within the predetermined period, while moving the gas feed point radially outward from the center of the target substrate to the periphery of the target substrate, such that the gas feed point is kept located radially inward of the liquid feed point during the period from the second time point to the third time point.

24. (Previously presented) A computer readable storage medium storing instructions which run on a computer to control a substrate cleaning apparatus to conduct a substrate cleaning method comprising:

performing a cleaning process on a target substrate while feeding a cleaning liquid onto

the substrate; and

performing a dry process on the target substrate after the cleaning process,

wherein the dry process comprises,

rotating the target substrate in a horizontal state during a predetermined period,

starting feeding of a rinse liquid onto a surface of the target substrate at or before a first time point within the predetermined period, while setting a liquid feed point where the rinse liquid is supplied onto the target substrate, at the center of the target substrate,

starting feeding of an inactive gas onto the surface of the target substrate at or before the first time point within the predetermined period, while setting a liquid feed point where the inactive gas is supplied onto the target substrate at a gas start position 10 to 50 mm distant from the center of the target substrate,

feeding the rinse liquid onto the surface of the target substrate during a period from the first time point to a second time point within the predetermined period, while moving the liquid feed point radially outward from the center of the target substrate to an intermediate position on the target substrate,

feeding the inactive gas onto the surface of the target substrate during the period from the first time point to the second time point, while moving the gas feed point radially inward from the gas start position to the center of the target substrate,

feeding the rinse liquid onto the surface of the target substrate during a period from the second time point to a third time point within the predetermined period, while moving the liquid feed point radially outward from the intermediate position to a periphery of the target substrate, and

feeding the inactive gas onto the surface of the target substrate during the period from the second time point to the third time point and a period from the third time point to a fourth time point within the predetermined period, while moving the gas feed point radially outward from the center of the target substrate to the periphery of the target substrate, such that the gas feed point is kept located radially inward of the liquid feed point during the period from the second time point to the third time point, and

rotating the substrate without feeding either the rinse liquid or the inactive gas on the surface of the target substrate for a predetermined time from or after the fourth time point, with a higher rotational speed than in the periods from the first time point to the fourth time point.

25. (New) The substrate cleaning method according to claim 1, wherein the liquid feed point and the gas feed point are moved in the same direction during the period from the second time point to the third time point.

26. (New) The substrate cleaning method according to claim 10, wherein the liquid feed point and the gas feed point are moved in the same direction during the period from the second time point to the third time point.